

**Remarks**

The Examiner is thanked for the Office Action dated January 15, 2003. This amendment and request for reconsideration is intended to be fully responsive thereto.

Claims 1, 2, 7-11 and 17-23 were rejected under 35 USC § 112, second paragraph, as being indefinite. Applicant has attempted to address each and every issue raised by the Examiner and the claims have been amended to address the Examiner's comments and objections. No new matter has been entered. Claims 1, 2, 7-11 and 17-23 are now believed to be in conformance with 35 U.S.C. 112.

Claims 1, 2, 7, 8, 18 and 19 were rejected under 35 USC 102 (b) as being anticipated by Wolf (USP 5,080,167). It is respectfully submitted that the prior art rejection is overcome in light of above amendment and the following comments. No new matter has been entered.


The present invention recites 3 circuits operating at the same time - air, refrigerant/coolant and water. In the prior art, Wolf '167 describes aircenters with coolant passing through them, but there is no requirement for the coolant plus water plus air elements as set forth in the present invention. Moreover, the specific structural requirements set forth in the dependent claims are not taught by the prior art. Therefore, the rejection of claims 1, 2, 7, 11, and 20-25 under 35 USC § 102 is improper.

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Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "**APPENDIX OF CHANGES BY AMENDMENT.**"

It is respectfully submitted that the application and claims are now believed to be in condition for allowance and notice to that effect is respectfully requested. Should the Examiner believe additional discussion would advance the prosecution of the present application, they are invited to contact the undersigned at the local telephone number listed below.

Respectfully submitted,

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In re ELLIOT, et al.  
09/614,586

In re Application of: ELLIOT, et al.

Appl. No. 09/614,586

Group Art Unit: 3743

Filed: July 12, 2000

Examiner: CIRIC

Title: HEATING AIR CONDITIONING INSTALLATION FOR A MOTOR VEHICLE

**APPENDIX OF CHANGES BY AMENDMENT**

**IN THE CLAIMS**

**Please amend claims 1, 2, 7-11 and 17-22 as follows:**

1. (Amended) A heating/air-conditioning installation for a motor vehicle, comprising a thermal loop which includes a refrigerating compressor, a [gas cooler] condenser, a pressure-reducing valve, an evaporator, and a heating element, wherein the [gas cooler] condenser and the heating element are [grouped] interconnected together into a single exchanger including a main module forming a main fluid-carrying heat exchanger adapted to simultaneously carry both a heat-carrying fluid and a refrigerant fluid.

2. (Amended) The installation of Claim 1, wherein the main fluid-carrying heat exchanger comprises:

- at least one surface for exchanging heat between air and [a] the heat-carrying fluid flowing through the main fluid-carrying heat exchanger, and
- at least one surface for exchanging heat between the heat-carrying fluid and [a] the refrigerant fluid [of a main loop] flowing through the main heat-carrying fluid exchanger.

7. (Amended) The installation of Claim 1, wherein the main fluid-carrying heat exchanger comprises:

- at least one surface for exchanging heat between air and [a] the refrigerant fluid, and
- at least one surface for exchanging heat between [a] the heat-carrying fluid and the refrigerant fluid.

8. (Amended) The installation of claim 1, wherein the main fluid-carrying heat exchanger includes a first collector of [a] the heat-carrying fluid and a second collector of [a] the refrigerant fluid, said first and second collectors being [which are] arranged at opposite ends of the main fluid-carrying heat exchanger.

9. (Amended) The installation of Claim 8, wherein an exchanger element within the thermal loop exchanges heat between the heat-carrying fluid and the refrigerant fluid, said element comprises at least one heat-carrying fluid circuit element for [making] circulating the heat-carrying fluid [circulate] along an outwards and return path from and to the [heat-carrying fluid] first collector and at least one refrigerant-fluid circuit element for [making] circulating the refrigerant fluid [circulate] along an outwards and return path from and to the [refrigerant-fluid] second collector.

10. (Amended) The installation of Claim 9, wherein circulation of the refrigerant fluid and circulation of the heat-carrying fluid currents are at least partly [counter] opposite to each other.

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11. (Amended) The installation of Claim 9, wherein the [refrigerant-fluid] second collector [exhibits] defines an element of volume forming a refrigerant-fluid bottle for the thermal loop.

17. (Amended) The installation of Claim 1, wherein the thermal loop further comprises an additional evaporator for operation in a heating mode and a second routing circuit [in order to form] defining a heat pump in the heating mode, the heat pump [including] utilizing the condenser of the main fluid-carrying heat exchanger [as gas cooler thereof] and the additional evaporator as an [evaporator thereof] apparatus for converting liquid into vapor.

18. (Amended) The installation of Claim 1, wherein the thermal loop further comprises a [third] routing circuit [in order to form] forming a heating loop in a thermal heating mode, the heating loop including the compressor and the main fluid-carrying heat exchanger, a refrigerant-fluid outlet of the main fluid-carrying heat exchanger being coupled to an inlet of the compressor.

19. (Amended) The installation of Claim 18, [wherein] further comprising a second pressure-reducing valve arranged downstream of the main fluid-carrying heat exchanger.

20. (Amended) The installation of Claim 1, wherein the thermal loop includes a supply device for supplying the main fluid-carrying heat exchanger [either] with at least one of cooling water and overcooled water as the heat-carrying fluid.

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21. (Amended) The installation of Claim 20, further comprising:

- an air-conditioning mode in which the main exchanger is traversed by the refrigerant fluid and by said overcooled water, and
- a heating mode in which the main fluid-carrying heat exchanger is traversed by said cooling water.

22. (Amended) The installation of Claim 21, further comprising a mixing flap which, in the air-conditioning mode, is in a closed position in which airflow is restricted to the main fluid-carrying heat exchanger [is isolated from an airflow].

**Please add new claims 30 and 31 as follows.**

30. The installation of Claim 1, wherein the heat-carrying fluid flows through a first circulation element and the refrigerant fluid flows through a second circulation element disposed adjacent to and abutting said first circulation element.

31. The installation of Claim 30, further comprising a heat dissipating fin adjacent said second circulation element.